



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/505,562	05/23/2005	Robert Erhart	10191/3949	7426
26646 7590 01/10/2007 KENYON & KENYON LLP ONE BROADWAY NEW YORK, NY 10004			EXAMINER PHAN, RAYMOND NGAN	
			ART UNIT 2111	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	DELIVERY MODE
3 MONTHS			01/10/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/505,562

Applicant(s)

ERHART ET AL.

Examiner

Raymond Phan

Art Unit

2111

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>08232004</u> . | 6) <input type="checkbox"/> Other: _____ |

Part III DETAILED ACTION

Notice to Applicant(s)

1. This application has been examined. Claims 15-28 are pending.
2. The Group and/or Art Unit location of your application in the PTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Group Art Unit 2111.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 15-28 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Shuman et al. (US No. 6,161,071) in view of Akbarian et al. (US No. 6,161,524).

In regard to claims 15, 19-20, 22, Shuman et al. disclose an apparatus for sensing an object and for outputting ascertained object data, comprising: at least one object-detection device (see col. 29, lines 16-41); a connector element for connection to a data bus (see col. 29, lines 16-41); and an arrangement for sending, via the connector element, a fixed, predetermined number of data packets provided for transmitting measurement data up to a maximum possible number of detected objects (see col. 29, lines 16-41). But Shuman et al. do not clearly disclose the

step of for sending, via the connector element; a fixed, predetermined number of data packets provided for transmitting measurement data. However Akbarian et al. disclose the use of CAN data bus to send measurement data between the sensors 3 and the processing unit 9 (see col. 5, lines 4, lines 56-65). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of Akbarian et al. within the system of Shuman et al. because it would provide a suitable interface for communicating various information to various applications.

In regard to claim 16, Akbarian et al. disclose further an arrangement for inserting current measurement data of the detected objects into the fixed, predetermined number of data packets; an arrangement for selecting and marking a most relevant object (see col. 4, lines 66 through col. 5, line 8); and an arrangement for outputting the data packets to the data bus via the connector element (see col. 5, lines 1-8). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of Akbarian et al. within the system of Shuman et al. because it would provide a suitable interface for communicating various information to various applications.

In regard to claims 17, 24, Shuman et al. disclose wherein: the measurement data of the object selected as the most relevant object are marked by one of a flag and inputting object data (see col. 29, lines 16-41).

In regard to claim 18, Shuman et al. disclose wherein: the apparatus is at least one of a transmitting and receiving device for radar radiation, a transmitting and receiving device for lidar radiation, and a receiving device for an image processing system (see col. 8, lines 22-51).

In regard to claim 21, Shuman et al. disclose wherein the apparatus is used in a motor vehicle in a device for adaptive cruise control along the lines of a constant-distance control and a constant-speed control (see col. 8, lines 22-42).

In regard to claim 23, Shuman et al. disclose wherein the data packets are provided for measurement data of a constant, predetermined number of detected objects (see col. 19, lines 23-42).

In regard to claim 25, Shuman et al. disclose wherein the object-detection device inserts information into the data packet as to whether the evaluation device already identified the particular object as relevant in a preceding data exchange cycle (see col. 29, lines 16-41).

In regard to claim 26, Akbarian et al. disclose wherein the data packets contain object identifiers (see col. 5, lines 22-46). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of Akbarian et al. within the system of Shuman et al. because it would provide an suitable interface for communicating various information to various applications.

In regard to claim 27, Shuman et al. disclose further: specifying at least one of a plurality of distance limits and a plurality of velocity limits, wherein: the object-detection device only takes into account at least one of the detected objects whose distance to the object-detection device lies within the distance limits and the detected objects whose relative velocity in relation to the object-detection device lies within the velocity limits (see col. 4, lines 18-47).

In regard to claim 28, even though Shuman et al. or Akbarian et al. disclose wherein the data packets are designed for a constant, predetermined number of objects and provide measurement data for 8, 16, or 32 objects, however one skilled

in the art would have understood that they can choose to specify the number of objects to fulfill their need.

Conclusion

6. All claims are rejected.
7. The prior arts made of record and not relied upon are considered pertinent to applicant's disclosure.

Winner et al. (US No. 6,580,385) disclose an object detection system.

Seto (US No. 6,470,257) discloses an adaptive cruise control system for automotive vehicles.

Hashimoto (US No. 5,764,919) discloses a data transmission method and system therefor.

Andreas (US No. 6,166,628) discloses an arrangement and method for detecting objects from a motor vehicle.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Raymond Phan, whose telephone number is (571) 272-3630. The examiner can normally be reached on Monday-Friday from 6:30AM- 4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on (571) 272-3632 or via e-mail addressed to mark.rinehart@uspto.gov. The fax phone number for this Group is (571) 273-8300.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [raymond.phan@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 central telephone number is (571) 272-2100.



Raymond Phan
December 26, 2006